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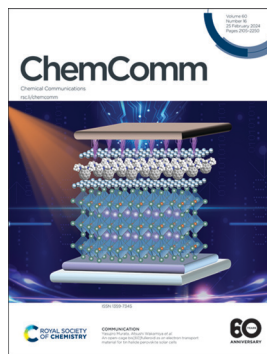
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Cover

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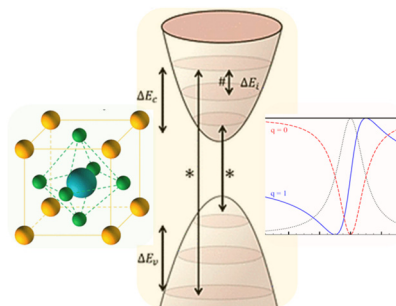
See Yasujiro Murata, Atsushi Wakamiya *et al.*, pp. 2172–2175. Image reproduced by permission of Atsushi Wakamiya from *Chem. Commun.*, 2024, 60, 2172.

HIGHLIGHT

2115

Fano-type discrete-continuum interaction in perovskites and its manifestation in Raman spectral line shapes

Chanchal Rani and Rajesh Kumar*

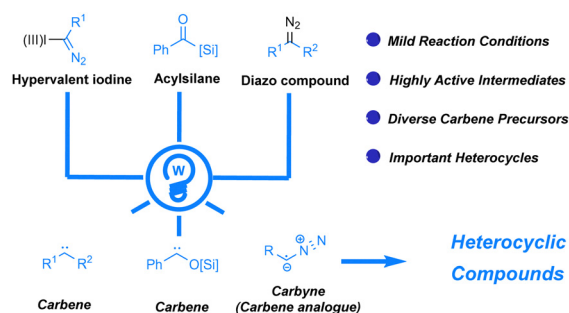


FEATURE ARTICLES

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Advances in heterocycle synthesis through photochemical carbene transfer reactions

Zi-Yi Xie and Jun Xuan*



Environmental Science: Atmospheres

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Fundamental questions
Elemental answers

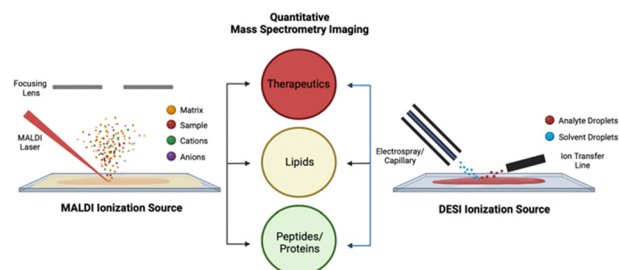


FEATURE ARTICLES

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Quantitative mass spectrometry imaging: therapeutics & biomolecules

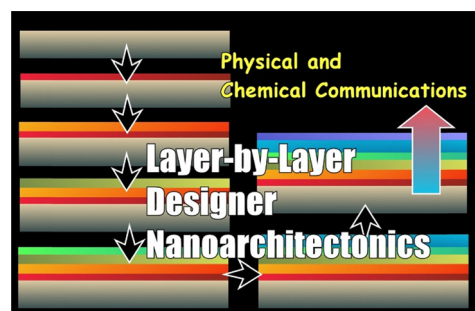
Joseph H. Holbrook, Gabrielle E. Kemper and Amanda B. Hummon*



2152

Layer-by-layer designer nanoarchitectonics for physical and chemical communications in functional materials

Katsuhiko Ariga,* Jingwen Song and Kohsaku Kawakami

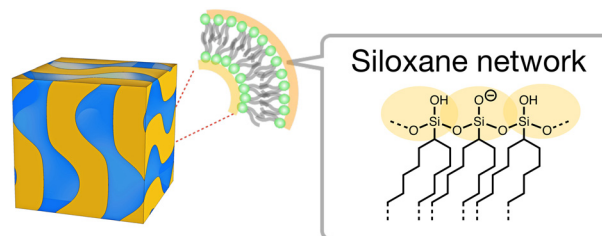


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Lipid cubic phase with an organic–inorganic hybrid structure formed by organoalkoxysilane lipid

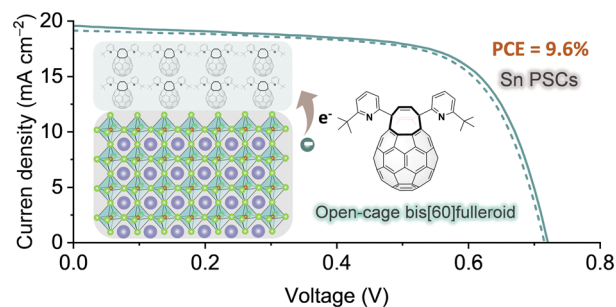
Miki Kariya, Kenichiro Omoto,* Kaoru Nomura, Kento Yonezawa, Hironari Kamikubo, Toshio Nishino, Tomomi Inoie, Gwénaél Rapenne and Kazuma Yasuhara*



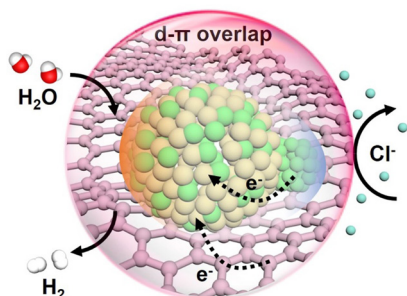
2172

An open-cage bis[60]fulleroid as an electron transport material for tin halide perovskite solar cells

Wentao Liu, Guanglin Huang, Chien-Yu Chen, Tiancheng Tan, Harata Fuyuki, Shuaifeng Hu, Tomoya Nakamura, Minh Anh Truong, Richard Murdey, Yoshifumi Hashikawa, Yasujiro Murata* and Atsushi Wakamiya*



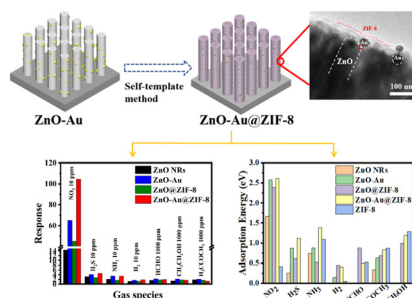
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Enhanced d- π overlap in a graphene supported Ni/PtNi heterojunction for efficient seawater hydrogen evolution

Xiong Yang, Yu-Xuan Xiao, Xue-Qi Zhang, Fei Yu, Ge Tian,* Wen-Ying Zhao, Ling Shen, Song Zhang and Xiao-Yu Yang*

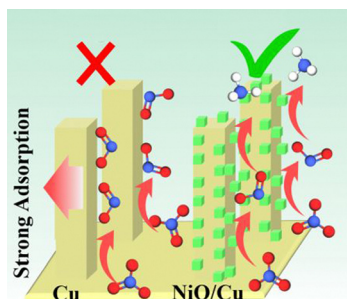
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ZnO-Au@ZIF-8 core-shell nanorod arrays for ppb-level NO₂ detection

Mingqi Sun, Mingyuan Wang, Xin Ni, Guiwu Liu, Guanqun Qiao, Shuangying Lei, Mingsong Wang* and Ling Bai*

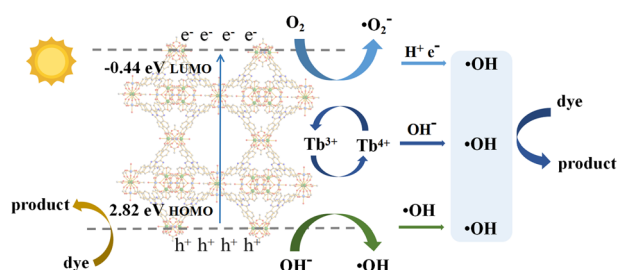
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Accelerating electrosynthesis of ammonia from nitrates using coupled NiO/Cu nanocomposites

Hongbo Zhu, Yanfeng Tang, Jiacheng Jayden Wang, Tongming Sun, Minmin Wang, Jin Wang, Yongwen Tan* and Jiacheng Wang*

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A porous and photoactive Ti-MOF based on a novel tetranuclear [Ti₂Tb₂] cluster

Qingxia Yao,* Xuze Pan, Xuezhen Si, Xin Wang, Xiaoying Zhang, Jinle Hou, Jie Su,* Yi Qiu and Jun Li*

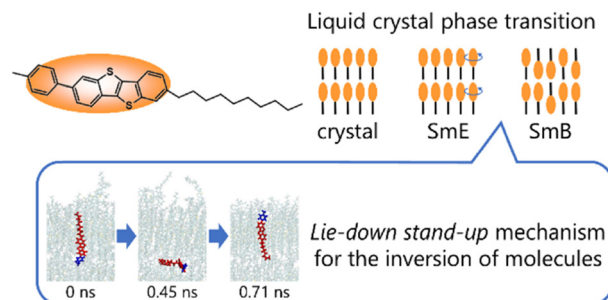


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Flip-flop dynamics in smectic liquid-crystal organic semiconductors revealed by molecular dynamics simulations

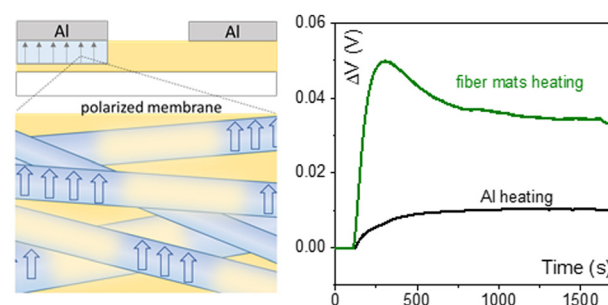
Tomoka Suzuki, Antonio De Nicola, Satoru Inoue, Tomoharu Okada, Tatsuo Hasegawa, Giuseppe Milano* and Hiroyuki Matsui*



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The enhanced ionic thermal potential by a polarized electrospun membrane

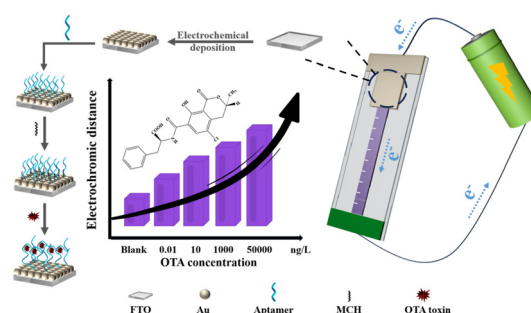
Ayesha Sultana, Md. Mehebab Alam, Reverant Crispin and Dan Zhao*



2200

A portable polymeric electrochromism-based visual biosensing device with distance readout

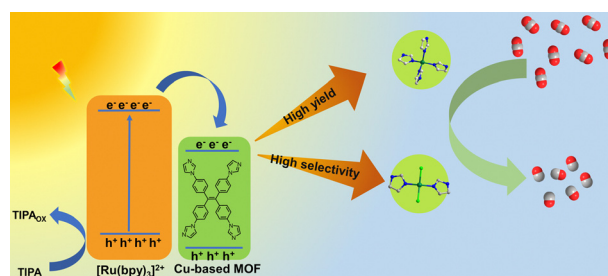
Xujing Feng, Lijun Ding, Yi Zou, Huadong Heng, Kezuo Di, Zhiying Shao, Nan Hao* and Kun Wang*



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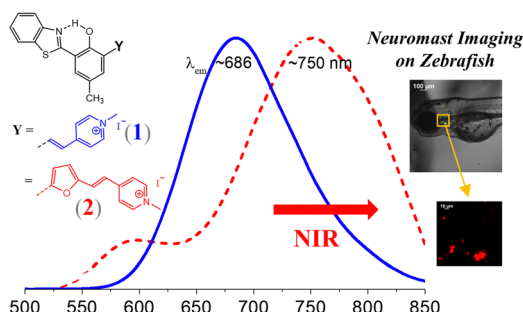
Supramolecular assemblies of Cu(II) with a tetraphenylethene-imidazole ligand for tuning photocatalytic CO₂ reduction

Zhao-Feng Qiu, Peng Wang, Xiao-Yu Zhang, Jia-Qi Chen, Kai-Yang Zhang, Xiang-Yu Lu, Yue Zhao and Wei-Yin Sun*



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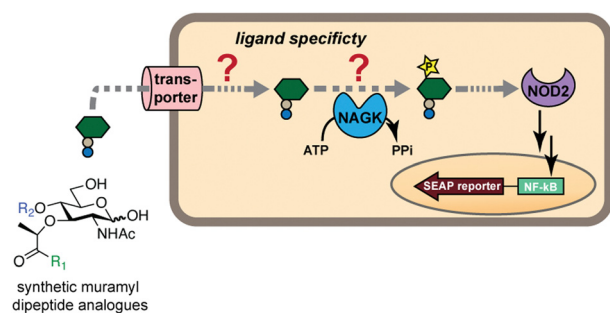
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An NIR-emitting cyanine dye with pyridinium groups: the impact of regio-bond connection on the photophysical properties

Yonghao Li, Matthew A. Tuttle, Qin Liu and Yi Pang*

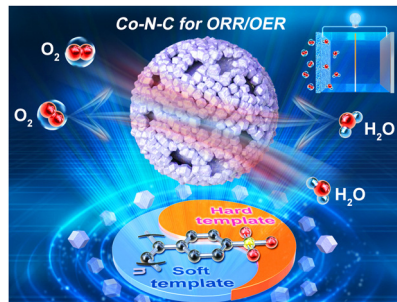
2212



A closer look at ligand specificity for cellular activation of NOD2 with synthetic muramyl dipeptide analogues

Christopher Adamson, Yaquan Liang, Shiliu Feng, Allan Wee Ren Ng and Yuan Qiao*

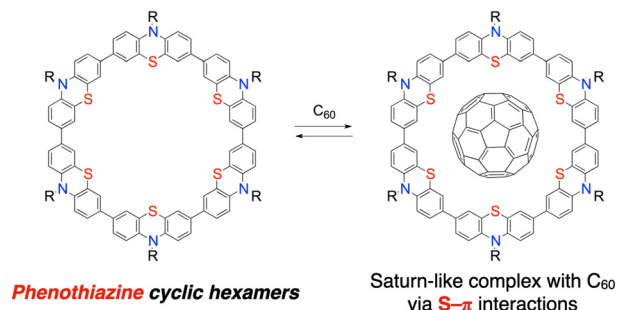
2216



Hierarchically porous aggregates of Co–N–C nanoparticles for oxygen electrocatalysis

Zuozhong Liang, Jiuling Zhang, Haoquan Zheng* and Rui Cao*

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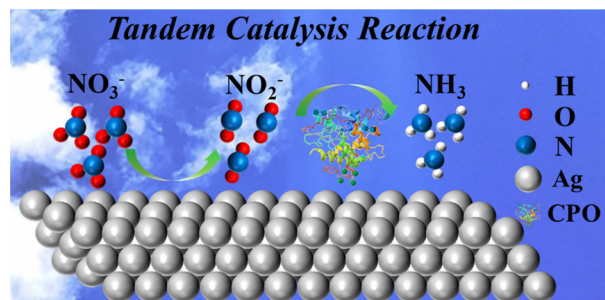
Phenothiazine cyclic hexamers: synthesis, properties, and complexation behavior with C₆₀

Koji Yamamoto,* Kanta Tsutsui, Miho Tanuma, Kaname Ito, Kan Wakamatsu, Koji Yamamoto and Yosuke Nakamura*

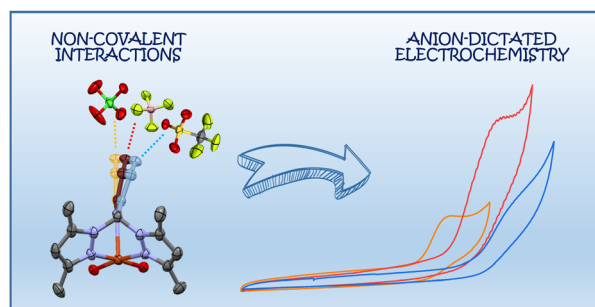


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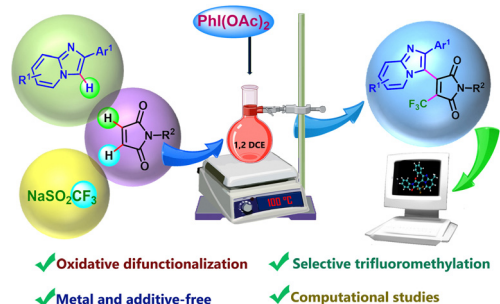
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Electroenzymatic tandem catalysis for the conversion of nitrate into ammoniaDongqi Liu, Xuefang Zhu, Jiawei Sun, Pengfei Wang,*
Yu Chen* and Yucheng Jiang*

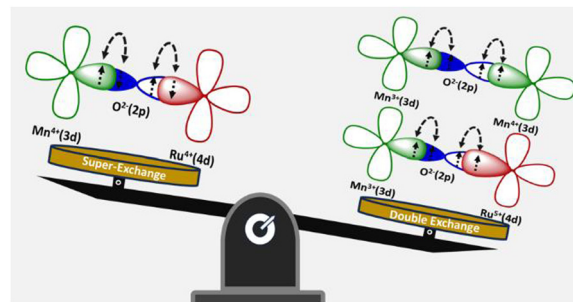
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Insights into non-covalent interactions in dicopper(II,II) complexes bearing a naphthyridine scaffold: anion-dictated electrochemistryJonathan De Tovar,* Christian Philouze,
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Iodine(III)-promoted oxidative carbotrifluoromethylation of maleimides with imidazopyridines and Langlois' reagentDipti Lai, Suvam Bhattacharjee, Saurodeep Mandal,
Sumit Ghosh, Prithidipa Sahoo, Subrata Sinha and
Alakananda Hajra*

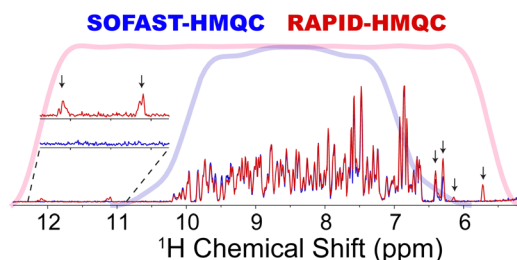
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Competing double-exchange/super-exchange ordering for enhanced water oxidation kineticsAlpana Sahu, Aswathi K. S., Amit Kumar Rajak,
Roshan Naik and Mohammad Qureshi*

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An artificial intelligence optimized NMR sequence enables to perform rapid heteronuclear 2D spectroscopy at ultra-high magnetic fields

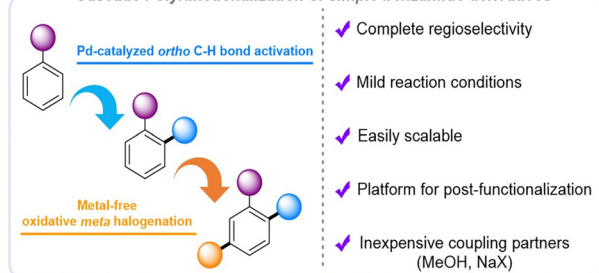


AI-designed RF pulses enable fast pulsing heteronuclear multiple quantum coherence NMR experiment at high and ultra-high magnetic fields

Manu Veliparambil Subrahmanian and Gianluigi Veglia*

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Cascade Polyfunctionalization of simple benzamide derivatives



Sequential *ortho*-/*meta*-C–H functionalizations of *N*-tosyl-benzamides for the synthesis of polyfunctionalized arenes

Martin Vuagnat, Philippe Jubault and Tatiana Besset*

